

What is claimed is:

1. A method for producing a laser mark on reflective material, by which the laser mark provided with a pattern that may be processed and observed is formed on the reflective material with reflective bodies, characterized in that
5 in accordance with the pattern an laser beam selectively scans and irradiates the reflective bodies at an incident angle, so that the irradiated surfaces of the reflective bodies are vaporized to form rough surfaces, while the nonirradiated surfaces of the reflective bodies are still of reflective surfaces, thereby the pattern is formed on the laser mark through the combination of
10 the dark spots corresponding to the rough surfaces and the bright spots corresponding to the reflective surfaces, and may be observed at the incident angle of the laser beam.

2. A method according to claim 1, characterized in that a laser beam selectively scans and irradiates the sides of a selected group of reflective
15 bodies at an incident angle, so that the irradiated surfaces of the reflective bodies are vaporized to form first rough surfaces, and then a laser beam selectively scans and irradiates the sides of another selected group of reflective bodies at another incident angle, so that the irradiated surfaces of the reflective bodies are vaporized to form second rough surfaces, wherein
20 the first rough surfaces and the second rough surfaces overlap incompletely, and the nonirradiated surfaces of the reflective bodies are still of reflective surfaces, thereby two patterns are formed respectively on the laser mark through the respective combination of the dark spots corresponding to the first rough surfaces or the dark spots corresponding to the second rough
25 surfaces and the bright spots corresponding to the reflective surfaces, and may be observed respectively at the incident angles of the two laser beams.

3. A method according to claim 1, characterized in that the incident angle is selected in a range from 10° to 80° .

4. A method according to claim 2, characterized in that the two incident angles are the same.

5 5. A method according to claim 2, characterized in that the two incident angles are different.

6. A method according to claim 2, characterized in that a laser beam selectively scans and irradiates the sides of a n^{th} selected group of reflective bodies at a n^{th} incident angle, so that the irradiated surfaces of the reflective
10 bodies are vaporized to form a n^{th} rough surfaces, wherein the first to n^{th} rough surfaces overlap incompletely with each other, and the nonirradiated surfaces of the reflective bodies are still of reflective surfaces, thereby n patterns are formed respectively on the laser mark through the respective combination of the first dark spots corresponding to the first rough surfaces,
15 the second dark spots corresponding to the second rough surfaces till the n^{th} dark spots corresponding to the n^{th} rough surfaces and the bright spots corresponding to the reflective surfaces, and may be observed respectively at the incident angles of the n laser beams, wherein n is an integer more than 2.

20 7. A method according to claim 6, characterized in that the n incident angles are the same.

8. A method according to claim 6, characterized in that the n incident angles are different.

9. A method according to claim 1, characterized in that the reflective bodes are spherical.

25 10. A method according to claim 1, characterized in that the reflective bodies are polyhedral.